

Pilonidal sinus

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The term pilonidal sinus describes a condition found in the natal cleft overlying the coccyx, consisting of one or more, usually non-infected, midline openings, which communicate with a fibrous track lined by granulation tissue and containing hair lying loosely within the lumen.

Aetiology and pathology Although acquired theories of development are better accepted than the more historical congenital theories, exact mechanisms of development are speculative. Evidence that supports the theory of the origin of pilonidal sinuses as acquired can be summarised as follows:

- Interdigital pilonidal sinus is an occupational disease of hairdressers.
- The age of the appearance of a pilonidal sinus is older than expected of a congenital lesion.
- Hair follicles are rarely present in the walls of the sinus.
- The pointed hair ends are directed towards the blind end of the sinus.
- The disease mostly affects hirsute men.
- Recurrence is common, even though adequate excision of the track is carried out. It is thought that the combination of buttock friction and shearing forces in that area allows shed hair or broken hairs that have collected there to drill through the midline skin, or that infection in relation to a hair follicle allows hair to enter the skin by the suction created by movement of the buttocks, so creating a subcutaneous, chronically infected, midline track. From this primary sinus, secondary tracks may spread laterally, which may emerge at the skin as granulation tissue-lined, discharging openings. Usually, but not invariably (when diagnosis may be confused with anal fistula or hidradenitis suppurativa [HA]), the sinus runs cephalad. Carcinoma arising in chronic pilonidal disease is exceedingly rare.

Clinical features The condition is seen much more frequently in men than in women, usually after puberty and before the fourth decade of life and is characteristically seen in dark-haired individuals rather than those with softer blond hair. Patients complain of intermittent pain, swelling and discharge at the base of the spine but little in the way of constitutional symptoms. There is often a history of repeated abscesses that have burst spontaneously, or that have been incised, usually away from the midline. The primary sinus may have one or many openings, Alexander A Limberg, 1894–1974, plastic surgeon, Leningrad, former Soviet Union. George E Karydakis, surgeon, Athens, Greece. John U Bascom, 1925–2013, surgeon, Eugene, OR, USA. sacrococcygeal joint and the tip of the coccyx. If no primary pits are seen or if the sinus either drains lateral to the sacrum or appears caudal to the primary pits, other diagnoses should be considered. These might include HA, complex anal fistula, osteomyelitis with draining skin sinuses or infective conditions such as tuberculosis or actinomycosis.

Conservative treatment The natural history is to regress over time. For those with minimal symptoms, simple cleaning of the tracks and removal of all hair, with regular hair exfoliation of the area and strict hygiene, may be recommended. Local techniques to cauterise the tracks using silver nitrate or laser coagulation may be useful in less complex disease.

Treatment of an acute exacerbation (abscess) The abscess should be drained through a small longitudinal incision made over the abscess and off the midline, with thorough curettage of granulation tissue and hair. This may result in complete resolution.

Surgical treatment of chronic pilonidal disease There are a multitude of surgical procedures advocated to eradicate pilonidal disease, which attests to the lack of overall superiority of one surgical technique. Time spent off work, recurrence rates and surgeon preference influence the

choice of technique. Options include laying open of all tracks with or without marsupialisation, excision of all tracks with or without primary closure and excision of all tracks with closure by some other means designed to avoid a midline wound (Limberg procedure, Z-plasty, Karydakis procedure (Figure 80.9). Bascom's procedure involves an incision lateral to the midline to gain access to the sinus cavity, which is rid of hair and granulation tissue (Figure 80.10), and excision and closure of the midline pits. The lateral wound is left open to heal secondarily. Failure to heal or recurrence is treated by a flap or cleft lift procedure, also described by Bascom. Irrespective of procedure, postoperative wound care is important and centres around elimination of hair (ingrown, local or other) from the wound. Recurrence rates are less but healing times slower after open healing compared with primary closure techniques. For primary closure, recurrence rates are lower and healing time faster after off-midline compared with midline closure techniques.

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